# DWR Climate News Digest

July 2018

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The information provided in the DWR Climate News Digest is a selected compilation of recent popular news articles, publications, and other information relevant to climate change and water management, and is intended to provide educational and thought-provoking material for water managers and water users.

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# **TOPICS**

# Agriculture/Food Production

Climate Change Threat Sends Coffee Roaster on Bean Hunt

[Bloomberg – July 11, 2018]

"Coffee lovers beware. Climate change is threatening supplies of high-quality beans with one Japanese coffee house hunting for the perfect bean to withstand the warmer conditions."

Emissions impossible: How big meat and dairy are heating up the planet

[GRAIN – July 18, 2018]

"The world's biggest meat and dairy operations combined pump more greenhouse gas into Earth's warming atmosphere than any one of the largest fossil-fuel giants."

# General Water Management

On the Yuba River, Climate Change Means It's Time for a Dam Makeover

[Water Deeply – July 10, 2018]

"Climate change brings new flood risks and new challenges for water storage managers. In California, one local water agency is taking on the big task of modifying its primary storage reservoir to be ready for these changes."

<u>To prepare for climate change, California is making a huge investment in water storage</u> [Sacramento Bee – July 26, 2018]

"Climate change, which already is reducing the Sierra snowpack and challenging our water delivery system, makes it even more critical to add storage in as many different forms as possible."

# Sea-Level Rise and other Ocean Impacts

# Rising Seas Could Cost the World \$14 Trillion A Year By 2100

[Newsweek – July 3, 2018]

"Rising sea levels could cost the global economy around \$14 trillion annually by 2100 if the 2°C warming limit agreed at the Paris climate talks is breached, according to a study published in the journal Environmental Research Letters."

#### Rising Seas Could Cause Problems for Internet Infrastructure

[NPR – July 16, 2018]

"The dense network of cables that make up the Internet is likely to be inundated with saltwater as sea levels rise, a new analysis suggests, putting thousands of miles of critical infrastructure along U.S. coastlines underwater in the next 15 years."

#### **Extreme Weather Events**

Record heat put thousands of Californians in the dark Friday. Scientists predicted this from climate change.

[The Washington Post – July 9, 2018]

"Californians were powerless, without air conditioning, in the hottest weather many had ever experienced. Climate scientists have known this was coming, and it may only be the beginning."

#### Extreme global weather is 'the face of climate change' says leading scientist

[The Guardian – July 27, 2018]

"The extreme heatwaves and wildfires wreaking havoc around the globe are 'the face of climate change,' one of the world's leading climate scientists has declared, with the impacts of global warming now 'playing out in real time.'"

# Human Health Impacts

#### Fueled by Climate Change, Wildfires Erode Air Quality Gains

[Scientific American – July 17, 2018]

"Climate change is not just increasing the likelihood of wildfires in some areas of the country; it's also erasing decades of air pollution gains in those same regions, according to a study published yesterday in the Proceedings of the National Academy of Sciences."

#### U.S. Is Unprepared for the Health Challenges of Climate Change, Experts Warn

[Scientific American – July 23, 2018]

"The United States isn't ready for the public health problems climate change will bring, experts have warned Congress."

# Wildlife and Ecosystem Impacts

## Climate Change Is Disrupting the Planet's Seasons

[Bloomberg – July 20, 2018]

"Four decades of temperature observations show what many suspected: Human activity is disrupting the behavior of plants, animals, and the march of the seasons."

#### Fish Will Start Losing Sense of Smell as Carbon Dioxide Levels Rise, Study Finds

[NY Times – July 24, 2018]

"[F]ish will start losing their ability to detect different smells by the end of the century if atmospheric carbon dioxide levels keep rising, scientists warned in a recent study published in the journal Nature Climate Change."

## **Greenhouse Gas Mitigation**

#### California beats its 2020 goals for cutting greenhouse gases

[Sacramento Bee - July 12, 2018]

"California has beaten its self-imposed goals for reducing greenhouse gas emissions, achieving a milestone in the state's fight against climate change."

# A Wonky Electricity Plan Could Help California Meet Its Climate Goals — Or Doom Them?

[Capital Public Radio – July 17, 2018]

"One of Gov. Jerry Brown's final climate change-related priorities is moving through the California Legislature but faces opposition from some Democrats."

# Climate Change Modeling

# Climate change will get a whole lot worse before it gets better, according to game theory [WIRED – July 6, 2018]

"It's going to get a lot worse before it gets any better. According to new research published in Nature, humanity will witness marked sea level rises and frequent killer heatwaves before governments take decisive action against climate change. And to predict the future, mathematicians have turned to game theory."

#### Global warming could be far worse than predicted, new study suggests

[USA Today – July 6, 2018]

"That's the potential future of Earth, a new study suggests, noting that global warming could be twice as warm as current climate models predict."

# Climate Change Adaptation

Airlines prepare for flying in hotter temps as climate change brings more extreme heat [CNBC – July 14, 2018]

"The gradual warming of the earth that has come with climate change is causing more frequent and more severe swings in weather patterns across the globe. That means more days of extreme heat that airlines didn't have to worry about before."

#### California Is Preparing for Extreme Weather. It's Time to Plant Some Trees.

[NY Times – July 15, 2018]

"[I]n addition to recreating the past, floodplain restoration is increasingly seen as a way of coping with the future — one of human-induced climate change."

# **International Planning**

#### This Tiny Country Says It Can Beat Climate Change

[Bloomberg – July 2, 2018]

"The island has become a 300-square-mile laboratory for what might be the question of the century: How much can a country inoculate itself against the effects of global warming?"

# Climate Change Scorecard

[NPR – July 8, 2018]

"A year after the U.S. pulled out of the Paris climate agreement, provides an update of what has changed."

# Communicating Climate Change

# Climate change forced a famously old-school museum to go digital

[Popular Science – July 3, 2018]

"How do you keep an exhibit up to date when the data is still rushing in?"

## Move over, polar bears: Climate change has a new symbol

[Grist – July 23, 2018]

"[G]iven the crazy heat waves, wild hurricanes, and downright bizarre disasters 2018 has already brought us, people are probably thinking about climate change a lot more."

# **BLOGS/Commentary**

#### California's Climate Summit Is a Moment to Lead on Oceans, Coasts

[Oceans Deeply – July 10, 2018]

"Sara Aminzadeh, executive director of California Coastkeeper Alliance and a member of the California Coastal Commission, says there's momentum for ambitious ocean commitments to be made at the upcoming Global Climate Action Summit."

#### The Carr Fire is a terrifying glimpse into California's future

[Sacramento Bee – July 27, 2018]

"This is climate change, for real and in real time. We were warned that the atmospheric buildup of man-made greenhouse gas would eventually be an existential threat."

# **Additional Items of Interest**

#### Investor-led moves to tackle climate change grow

[Financial Times – July 2, 2018]

"Big investors are stepping up their efforts to hold the companies they invest in to greater account over how they address climate change."

#### Trump's Cuts in Climate-Change Research Spark a Global Scramble for Funds

[The New Yorker – July 7, 2018]

"The poorest countries in the world, including those in the Caribbean, emit about one-fifth of global carbon emissions, yet they are the most susceptible to the effects of climate change. As a result, leaders from many of these nations who previously looked to Washington for support and guidance are now searching for new sources of funding."

#### A scientist's final paper looks toward Earth's future climate

[NASA – July 16, 2018]

"A NASA scientist's final scientific paper, published posthumously this month, reveals new insights into one of the most complex challenges of Earth's climate: understanding and predicting future atmospheric levels of greenhouse gases and the role of the ocean and land in determining those levels."

#### Turns Out Cities Can't Sue Oil Companies for Climate Change

[WIRED – July 20, 2018]

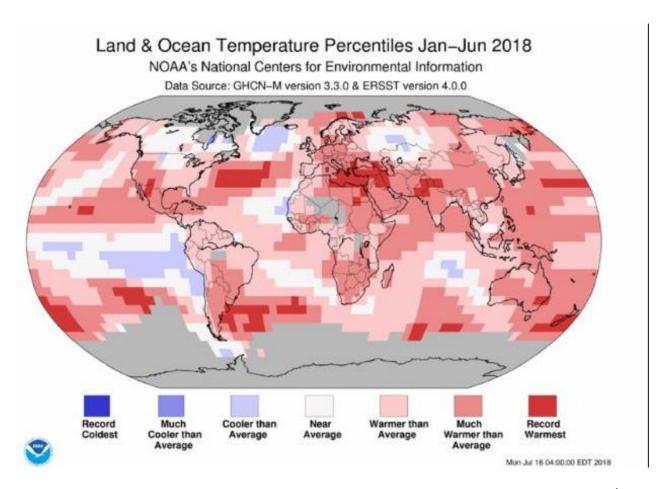
"You can't sue your way to a solution for global warming. So says the judge."

# Kids around the world are suing governments over climate change—and it's working

[Quartz – July 24, 2018]

"Collectively, the lawsuits are creating new precedents that bolster activism—and may, in the long term, help alter the way governments think about their responsibility to protect citizens against climate change."

# **Images to Ponder**



As July marks halfway through the current year, 2018 is on pace to be the 4<sup>th</sup>-hottest year on record, behind 2015, 2016, & 2017. The figure above reflects the warmer-than-average temperatures for the first six months almost across the entire globe.

#### More can be read at:

2018 is on pace to be the 4th-hottest year on record

Current and past editions of the DWR Climate News Digest can be viewed and downloaded at: <a href="http://www.water.ca.gov/climatechange/news.cfm">http://www.water.ca.gov/climatechange/news.cfm</a>. Please email questions, comments, or listserv subscription requests to: <a href="mailto:climatechange@water.ca.gov">climatechange@water.ca.gov</a>.